

REMARKS

Claims 1-42 are in pending in this application. By this Amendment, claims 1, 15, 21, 26 and 39 are amended and claims 5, 16, 22 and 34 are cancelled. No new matter is added. Favorable reconsideration and allowance of this application are respectfully requested at least in view of the above amendments and following remarks.

Further, Applicants appreciate the courtesies shown to Applicants' representatives by SPE Perveen and Examiner Sugent during the August 6, 2007 personal interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

I. Rejection of Claims under 35 U.S.C. §102(e)

Claims 1-30 and 34-38 are rejected under 35 U.S.C. §102(e) over U.S. Patent Publication No. 2004/0221185 A1 to Bose et al. (hereinafter "Bose"). Applicants respectfully traverse the rejection.

As discussed during the personal interview, Bose at least fails to disclose or suggest generating an information vector for a line before or as the line is fetched into the instruction cache as positively recited in independent claims 1, 15 and 21.

The Office Action asserts that Bose discloses generating an information vector (132) for the line before or as the line is fetched into the instruction cache, wherein the information vector identifies a set of functional units that are operable to execute the one or more software instructions (¶0042). However, the instant invention as recited in claims 1, 15 and 21 is at least distinguished from Bose, in that Bose discloses unit-level activity prediction logic 130 employing current-cycle machine state vectors 132 to generate request signals to target units (emphasis added; ¶0040; ¶0042). Further, Bose discloses these current-cycle machine state vectors 132 being based on instructions currently found within the instruction cache 102 (ICACHE) (¶0039),

and therefore, cannot be found to disclose or suggest generating an information vector for the line before or as the line is fetched into the instruction cache as positively recited in claims 1, 15 and 21.

Accordingly, at least because Bose fails to disclose or suggest generating an information vector for the line before or as the line is fetched into the instruction cache, Bose cannot reasonably be considered to disclose the combination of all the features positively recited in independent claims 1, 15 and 21. Applicants respectfully request favorable reconsideration and withdrawal of the 35 U.S.C. §102(e) rejection.

Similarly, independent claim 26 recites a predecoder, that is configured to evaluate a software instruction before or as the instruction is fetched into the instruction cache. Correspondingly, Bose is also not found to at least disclose or suggest a predecoder, which is operable to evaluate a software instruction before or as the instruction is fetched into the instruction cache, as positively recited in claim 26.

Bose discloses unit-level activity prediction logic 130 employing current-cycle machine state vectors 132 to generate request signals to target units (emphasis added; ¶0040; ¶0042). Further, Bose discloses these current-cycle machine state vectors 132 being based on instructions currently found within the instruction cache 102 (ICACHE) (¶0039), and therefore, cannot be found to disclose or suggest a predecoder, which is operable to evaluate a software instruction before or as the instruction is fetched into the instruction cache, as positively recited in claim 26.

Accordingly, because Bose at least fails to disclose or suggest a predecoder, which is operable to evaluate a software instruction before or as the instruction is fetched into the instruction cache, Bose cannot reasonably be considered to disclose the combination of all the

features recited in independent claim 26. Applicants respectfully request favorable reconsideration and withdrawal of the 35 U.S.C. §102(e) rejection.

Regarding dependent claims 2-4, 6-14, 17-20, 23-25, 27-30 and 35-38, these claims are patentable for at least the reasons that independent claims 1, 15, 21 and 26 are patentable, as well as for the additional features they recite. Accordingly, Applicants respectfully request favorable reconsideration and withdrawal of the 35 U.S.C. §102(e) rejection.

II. Rejection of Claims under 35 U.S.C. §103(a)

Claims 31-33 and 39-42 are rejected under 35 U.S.C. §103(a) over Bose in further view of U.S. Patent Publication No. 2005/0251621 A1 to Theis (hereinafter "Theis"). Applicants respectfully traverse the rejection.

Independent claim 39 recites a predecoder that is configured to evaluate a software instruction before or as the instruction is fetched into the instruction cache. Correspondingly, Bose is also not found to at least disclose a predecoder, which is operable to evaluate a software instruction before or as the instruction is fetched into the instruction cache, as positively recited in claim 39.

Bose discloses unit-level activity prediction logic 130 employing current-cycle machine state vectors 132 to generate request signals to target units (emphasis added; ¶0040; ¶0042). Further, Bose discloses these current-cycle machine state vectors 132 being based on instructions currently found within the instruction cache 102 (ICACHE) (¶0039), and therefore, cannot be found to disclose a predecoder, which is operable to evaluate a software instruction before or as the instruction is fetched into the instruction cache, as positively recited in claim 39.

Although not relied on by the Office Action, Applicants respectfully assert that Theis also fails to disclose the above features recited in independent claim 39, and therefore, fails to make up for the deficiencies of Bose.

Accordingly, because Bose and Theis at least fail to disclose a predecoder that is configured to evaluate a software instruction before or as the instruction is fetched into the instruction cache, Bose and Theis cannot reasonably be considered to disclose the combination of all the features recited in independent claim 39. Applicants respectfully request favorable reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection.

Regarding dependent claims 31-33 and 40-42, these claims are patentable for at least the reasons that independent claim 39 is patentable, as well as for the additional features they recite. Accordingly, Applicants respectfully request favorable reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection.

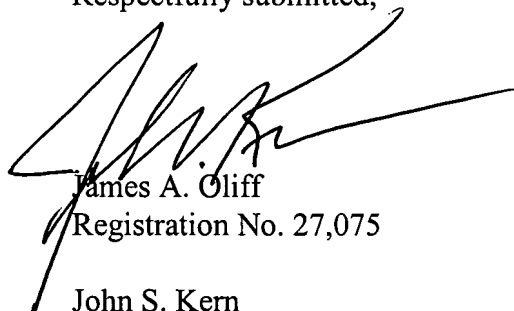
III. Conclusion

In accordance with the above remarks, Applicants respectfully submit that independent claims 1, 15, 21, 26, and 39 define patentable subject matter. Claims 2-4, 6-14, 17-20, 23-25, 27-33, 35-38 and 40-42 depend from claims 1, 15, 21, 26, and 39, respectively, and therefore, also define patentable subject matter, as well as for the additional features they recite. Thus, Applicants respectfully request that the Examiner withdraw the rejections.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-4, 6-15, 17-21, 23-33 and 35-42 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:

Petition for Extension of Time

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